



 west virginia department of environmental protection

Office of Oil and Gas
 601 57th Street, S.E.
 Charleston, WV 25304
 (304) 926-0450
 fax: (304) 926-0452

Austin Caperton, Cabinet Secretary
www.dep.wv.gov

Wednesday, April 24, 2019
 WELL WORK PLUGGING PERMIT
 Vertical Plugging

ROSS AND WHARTON GAS COMPANY, INC.
 RT. 5, BOX 29

BUCKHANNON, WV 262010000

Re: Permit approval for 4
 47-041-02131-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926- 0450.

James A. Martin
 Chief

Operator's Well Number: 4
 Farm Name: BARBAROW, NELLIE
 U.S. WELL NUMBER: 47-041-02131-00-00
 Vertical Plugging
 Date Issued: 4/24/2019

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47-04-02131P

04/26/2019

PERMIT CONDITIONS

West Virginia Code §22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.

1) Date February 4, 2019 **04/26/2019**
2) Operator's
Well No. Nellie Barbarow #4
3) API Well No. 47-041 - 02131

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

APPLICATION FOR A PERMIT TO PLUG AND ABANDON

4) Well Type: Oil ___ / Gas X / Liquid injection ___ / Waste disposal ___ /
(If "Gas, Production ___ or Underground storage ___) Deep ___ / Shallow X

5) Location: Elevation 1143' Watershed Little Cove Creek
District Freemans Creek County Lewis Quadrangle Vadis

6) Well Operator Ross & Wharton Gas Co. Inc. 7) Designated Agent Mike Ross
Address 354 Morton Ave. Address P.O. Box 219
Buckhannon, WV 26201 Coalton, WV 26257

8) Oil and Gas Inspector to be notified Name Barry Stollings
Address 28 Conifer Dr.
Bridgeport, WV 26330
9) Plugging Contractor Name N/A
Address _____

10) Work Order: The work order for the manner of plugging this well is as follows:

Free point and recover casing's & tubular's SPOT GEL,

6% Gel between plug's

Set cement plug 2000' to TD (2552') Plug 100' above top perf

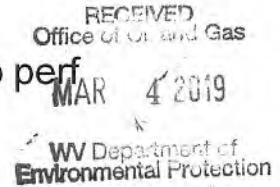
Set 100' cement plug across casing cut

Set cement plug 1600' to 1700' (Lime, Blue Monday)

Set cement plug 1100' to 1200' elevation plug

Set cement plug 600' to 700'(salt bearing strata)Set cement plug 300' to surface,(8 5/8" casing plug, freshwater protection plug

and surface plug) Tag plug's as necessary, Set monument with API number



Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector Barry Stollings Date 2-26-19



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STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

OIL & GAS DIVISION
T. C. FIELDS

Oil and Gas Division

WELL RECORD

Quadrangle Vadis 7 1/2
Permit No. Lew-2131

Rotary X Oil _____
Cable _____ Gas XY
Recycling _____ Comb. _____
Water Flood _____ Storage _____
Disposal _____ (Kind)

Company Ro Jo Industries, Inc.
Address Glenville W. Va.
Farm Nellie Barbarow Acres 125
Location (waters) Little Cove Creek
Well No. 4 Elev. 1143 KB
District Freemans Creek County Lewis
The surface of tract is owned in fee by Nellie Barbarow
Address Little Cove Creek
Mineral rights are owned by _____
Address _____
Drilling Commenced 8/1/77
Drilling Completed 8/7/77
Initial open flow 90 mcf cu. ft. 0 bbls.
Final production 3,900 mcf cu. ft. per day show bbls.
Well open 4 hrs. before test 845 RP.
Well treatment details:

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			to surface 150 sks.
Cond. 13-10"			
9 5/8			
8 5/8	241	251	
7			
5 1/2			
4 1/2	2537	2537	
3			
2			
Liners Used			

Attach copy of cementing record.

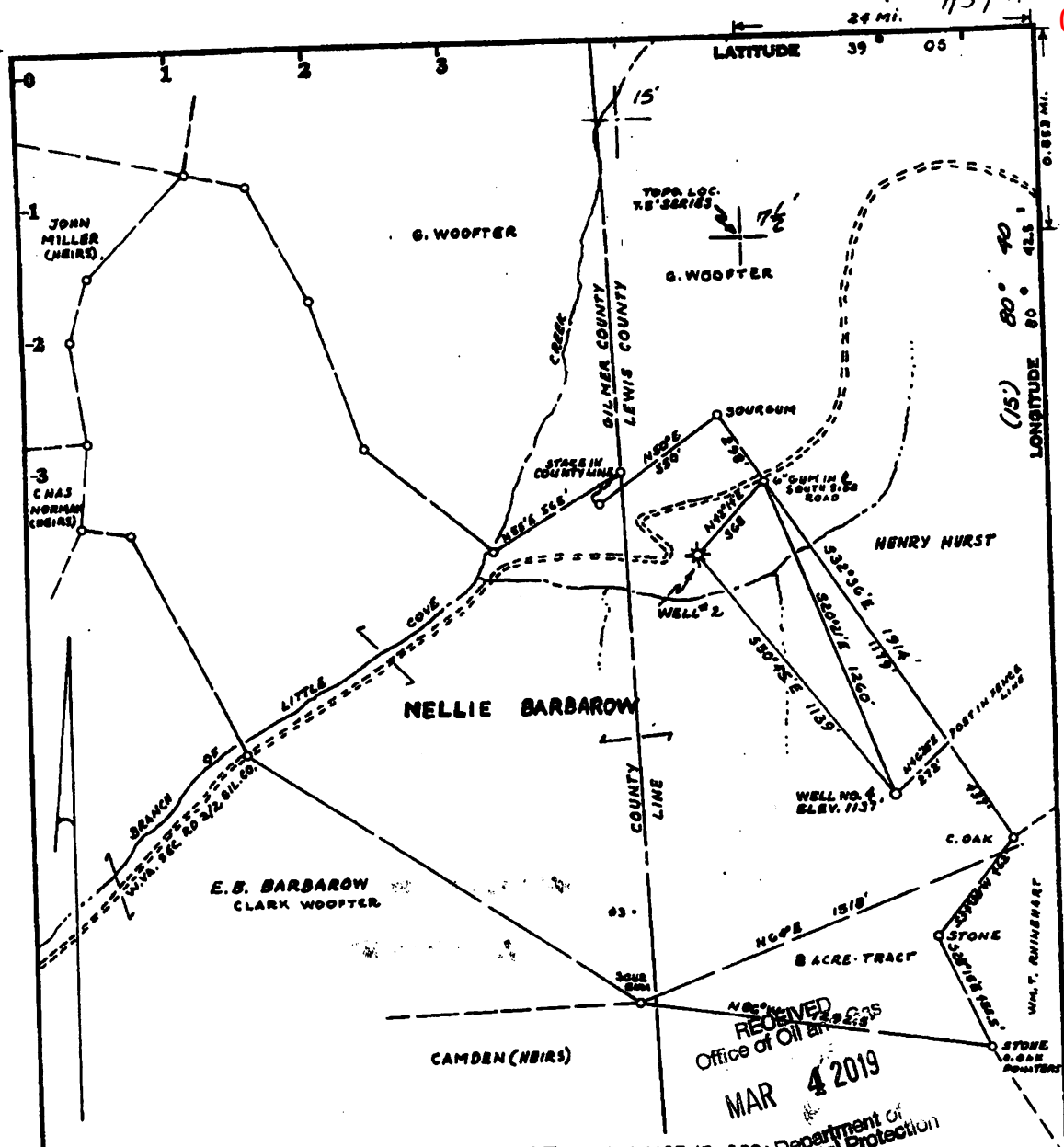
Well Frac 8-23-77
Perforations 2142 to 2186, 12 holes
841 Bls of water
53 thousand lb of 20/40 sand
1587 HHP
35 BPM at 1950 lb
500 gal of 15% acid
Coal was encountered at No Feet _____ Inches
Fresh water 90 Feet _____ Salt Water _____ Feet _____
Producing Sand Big Injun Depth 2142

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Soil			0	15		
Sand			15	200		
Shale, Sand, Red Rock			200	1514		
Sand			1514	1620		
Shale			1620	1664		
Sand			1664	1698		
Shale			1698	1730		
Sand			1730	1780		
Shale			1780	1960		
Limestone			1960	1970		
Shale			1970	1980		
Limestone			1980	2030		
Sand			2030	2040		
Limestone			2040	2140		
Dolomite, sandy			2140	2196		
Siltstone & Shale			2196	2354		
Shale			2354	2446		
Gantz			2446	2453		
Shale			2453	2552		
				2552	Total Depth	

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MAR 4 2019
WV Department of Environmental Protection

* Indicates Electric Log tops in the remarks section.

(over)



Minimum Error of Closure ONE PART IN 200,000
 Source of Elevation INTERSECTION OF ROAD 3200'S WEST

OR RO-TO INDUSTRIES WELL NO. 4 ELEV. 861'
 I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

Fracture
 New Location
 Drill Deeper
 Abandonment

Map No. _____ Signed: Mark C. Echard
 Squares: N S E W

Company RO-TO INDUSTRIES, INC.
 Address PO BOX 86 SANDFORK W.VA 26430
 Farm NELLIE BARBAROW
 Tract _____ Acres 12.51 Lease No. _____
 Well (Farm) No. FOUR Serial No. _____
 Elevation (Spirit Level) 1137'
 Quadrangle YADIS 7.5' SERIES 15'
 County LEWIS District FREEMANS CREEK
 Surveyor _____
 Engineer MARK C. ECHARD
 Engineer's Registration No. 490
 File No. _____ Drawing No. _____
 Date JUNE 28, 1977 Scale 1" = 500 FEET

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON

WELL LOCATION MAP
 FILE NO. LEW-2131

+ Denotes location of well on United States Topographic Maps, scale 1 to 24,000, latitude and longitude lines being represented by border lines as shown.
 - Denotes one inch spaces on border line of original tracing. **47-041**

47-041-02131P

04/26/2019

WW-4A
Revised 6-07

1) Date: February 4, 2019
2) Operator's Well Number
~~Warder-West #1~~ Nellie Barbarrow #4
3) API Well No.: 47 - 041 - 02131

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
NOTICE OF APPLICATION TO PLUG AND ABANDON A WELL

4) Surface Owner(s) to be served:	5) (a) Coal Operator
(a) Name <u>Lois E. Bode et.al.</u>	Name <u>N/A</u>
Address <u>11 Lomax Lane</u> <u>Elkview, WV 25071</u>	Address _____
(b) Name _____	(b) Coal Owner(s) with Declaration
Address _____	Name <u>N/A</u>
(c) Name _____	Address _____
Address _____	Name _____
	Address _____
6) Inspector <u>Barry Stollings</u>	(c) Coal Lessee with Declaration
Address <u>28 Conifer Dr.</u>	Name <u>N/A</u>
<u>Bridgeport, WV 26330</u>	Address _____
Telephone <u>304-552-4194</u>	_____

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

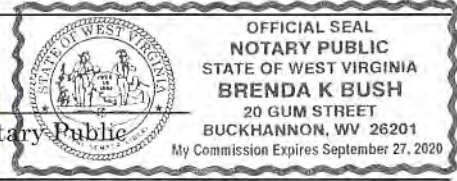
The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverse side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas, West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

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Well Operator Ross & Wharton Gas Co. Inc.
By: Duke Ross
Its: President
Address 354 Morton Ave.
Buckhannon, WV 26201
Telephone 1-304-472-4289



Subscribed and sworn before me this 4th day of February 2019
Brenda K Bush
My Commission Expires September 27, 2020

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at depprivacyofficer@wv.gov.

47-041-02131 P

04/26/2019

WW-9
(5/16)

API Number 47 - 041 - 02131
Operator's Well No. _____

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN

Operator Name Ross & Wharton Gas Co. Inc. OP Code 306580

Watershed (HUC 10) Little Cove Creek Quadrangle Vadis

Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No

Will a pit be used? Yes No

If so, please describe anticipated pit waste: _____

Will a synthetic liner be used in the pit? Yes No If so, what ml.? _____

Proposed Disposal Method For Treated Pit Wastes:

- Land Application (if selected provide a completed form WW-9-GPP)
- Underground Injection (UIC Permit Number _____)
- Reuse (at API Number _____)
- Off Site Disposal (Supply form WW-9 for disposal location)
- Other (Explain _____)

Will closed loop system be used? If so, describe: _____

Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. _____

-If oil based, what type? Synthetic, petroleum, etc. _____

Additives to be used in drilling medium? _____

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. _____

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) _____

-Landfill or offsite name/permit number? _____

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Permittee shall provide written notice to the Office of Oil and Gas of any load of drill cuttings or associated waste rejected at any location West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature *Mike Ross*
Company Official (Typed Name) Mike Ross
Company Official Title President

Subscribed and sworn before me this 4th day of February, 2019

Brenda K Bush

My commission expires September 27, 2020



Operator's Well No. _____

Proposed Revegetation Treatment: Acres Disturbed 1 acre Prevegetation pH 6.5

Lime 2 Tons/acre or to correct to pH 6.5

Fertilizer type 10-20-20

Fertilizer amount 500 lbs/acre

Mulch Hay Tons/acre

Seed Mixtures

Temporary

Permanent

Seed Type	lbs/acre
Fescue	30
Contractors Mix	

Seed Type	lbs/acre
Fescue	30
Contractors Mix	

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

Plan Approved by: Bang Sills

Comments: _____

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Title: inspector

Date: 2-26-19

Field Reviewed? () Yes

() No

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
GROUNDWATER PROTECTION PLAN

Operator Name: Ross & Wharton Gas Co. Inc.

Watershed (HUC 10): Little Cove Creek Quad: Vadis

Farm Name: _____

1. List the procedures used for the treatment and discharge of fluids. Include a list of all operations that could contaminate the groundwater.

N/A

2. Describe procedures and equipment used to protect groundwater quality from the list of potential contaminant sources above.

N/A

3. List the closest water body, distance to closest water body, and distance from closest Well Head Protection Area to the discharge area.

Little Cove Creek

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4. Summarize all activities at your facility that are already regulated for groundwater protection.

N/A

5. Discuss any existing groundwater quality data for your facility or an adjacent property.

N/A

6. Provide a statement that no waste material will be used for deicing or fill material on the property.

No material will be used

7. Describe the groundwater protection instruction and training to be provided to the employees. Job procedures shall provide direction on how to prevent groundwater contamination.

N/A

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8. Provide provisions and frequency for inspections of all GPP elements and equipment.

N/A

Signature: Trish Rose

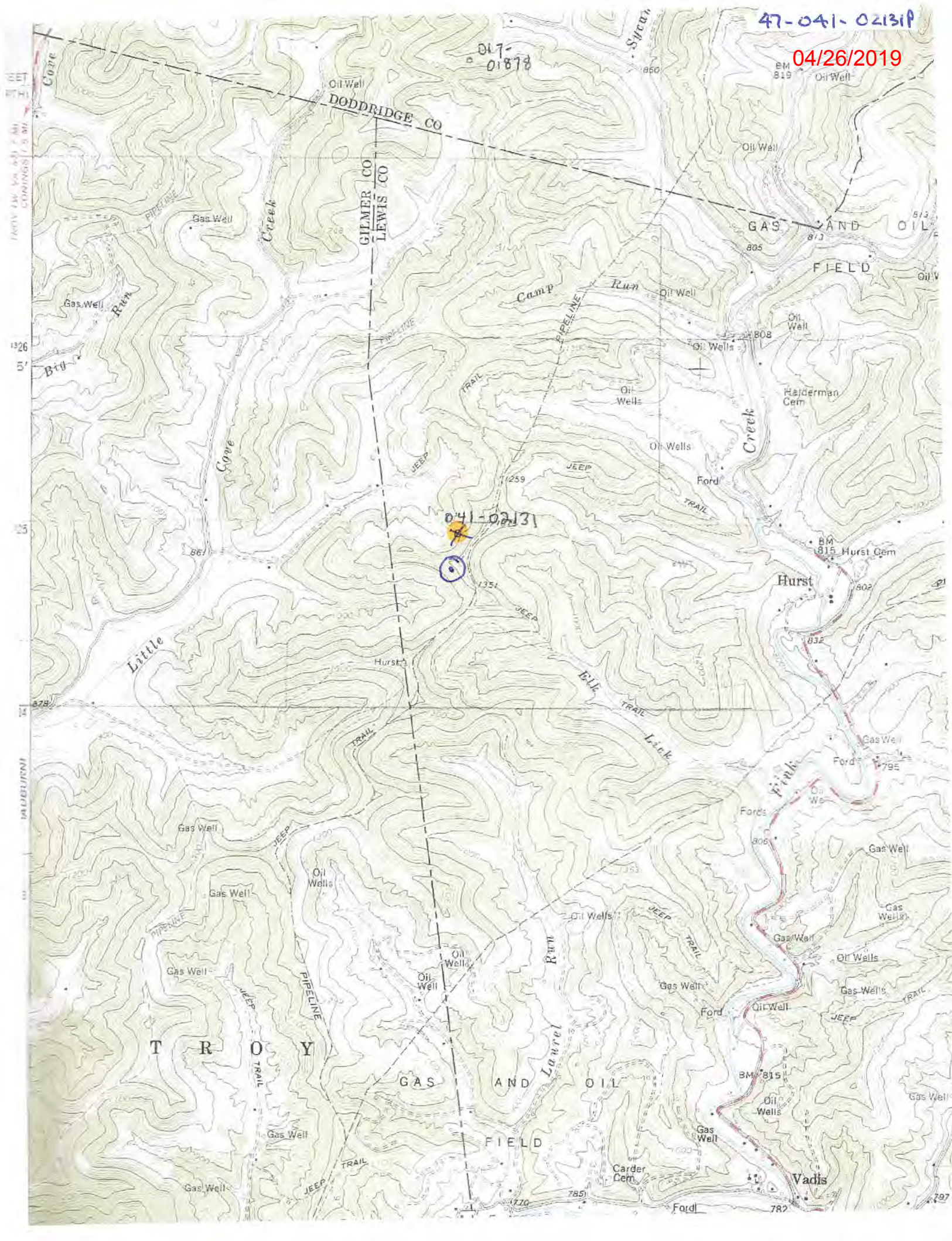
Date: February 4, 2019

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04/26/2019

017-01878

041-02131



WW-7
8-30-06



West Virginia Department of Environmental Protection
Office of Oil and Gas
WELL LOCATION FORM: GPS

API: 47-041-02131 WELL NO.: 4

FARM NAME: Nellie Barbarow

RESPONSIBLE PARTY NAME: Mike Ross

COUNTY: Lewis DISTRICT: Freemans Creek

QUADRANGLE: Vadis

SURFACE OWNER: Lois E. Bode et.al.

ROYALTY OWNER: Donald Barbarow

UTM GPS NORTHING: ~~4325198.1~~ 4324944.9

UTM GPS EASTING: ~~523655.3~~ 523914.4 GPS ELEVATION: 1143'

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

1. Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: height above mean sea level (MSL) – meters.
2. Accuracy to Datum – 3.05 meters
3. Data Collection Method:
Survey grade GPS ____ : Post Processed Differential ____

Real-Time Differential ____

Mapping Grade GPS ____ : Post Processed Differential ____

Real-Time Differential ____

4. Letter size copy of the topography map showing the well location.

I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

Mike Ross
Signature

President
Title

Feb. 4, 2019
Date

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